This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

IN THE CLAIMS:

Claim 33 was previously cancelled. Claims 1-32 and 34-44 have been amended herein.

All of the pending claims 1-32 and 34-44 are presented below. This listing of claims will replace all prior versions and listings in the application. Please enter these claims as amended.

1. (Currently Twice Amended) A melt-pourable explosive composition comprising: 30 weight percent to 70 weight percent of one or more organic binders selected from the group consisting of mononitro aromatics and dinitro aromatics, said the one or more organic binders collectively exhibiting a total energy of detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C; and



30 weight percent to 70 weight percent of one or more oxidizers,

wherein-said the melt-pourable explosive composition-becomes is pourable and is remeltable to a pourable state at a temperature in a range of 80°C to 115°C, and

wherein at least 95 weight percent of said the melt-pourable explosive composition comprises a combination of said the one or more organic binders and said the one or more inorganic oxidizers.

- 2. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more organic binders comprise at least one mononitro aromatic compound and at least one dinitro aromatic compound.
- 3. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein said the mononitro aromatics each comprise one nitrocarbon moiety and wherein said the dinitro aromatics each comprise two nitrocarbon moieties.
- 4. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more organic binders comprise at least one member selected from the group consisting of mononitro-substituted and dinitro-substituted phenyl alkyl ethers.

- 5. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more binders comprise at least one member selected from the group consisting of 2,4-dinitroanisole, 2,4-dinitrophenotoledinitrophenetole, and 4-methoxy-2-nitrophenol.
- 6. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more binders comprise 2,4-dinitroanisole.



- 7. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more binders comprise an N-alkyl-nitroaniline processing aid.
- 8. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more binders comprise N-methyl-nitroaniline as a processing aid.
- 9. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the one or more binders comprise at least one processing aid selected from the group consisting of N-alkyl nitroaniline and N-aryl-nitroaniline, said the at least one processing aid accounting for not more than 1 weight percent of the melt pourable melt-pourable explosive composition.
- 10. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the melt-pourable explosive composition undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than-said the temperature at which said the melt-pourable explosive composition becomes pourable.
- 11. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the melt-pourable explosive composition exhibits a card gap value of less than 121.

- 12. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the melt-pourable explosive composition exhibits a card gap <u>value</u> of less than 101.
- 13. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the melt-pourable explosive composition exhibits a dent depth in a range of 0.754 cm to 0.922 cm.



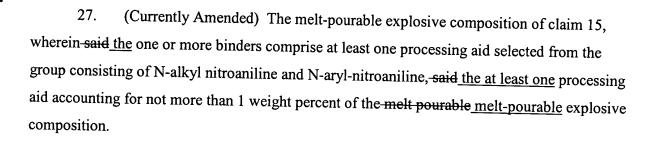
- 14. (Currently Amended) The melt-pourable explosive composition of claim 1, wherein-said the melt-pourable explosive composition has a total energy of detonation of 7.1 kJ/cc to 8.7 kJ/cc.
- 15. (Currently Twice Amended) A melt-pourable explosive composition comprising: 30 weight percent to 70 weight percent of one or more organic binders selected from the group consisting of mononitro aromatics and dinitro aromatics, said the one or more organic binders collectively exhibiting a total energy detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C; and 30 weight percent to 70 weight percent of one or more inorganic oxidizers, wherein-said the melt-pourable explosive composition-becomes is pourable and is remeltable to a pourable state at a temperature in a range of 80°C to 115°C, and wherein at least 95 weight percent of said the melt-pourable explosive composition comprises a combination of said the one or more organic binders and said the one or more inorganic oxidizers.
- 16. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more organic binders comprise at least one mononitro aromatic compound and at least one dinitro aromatic compound.

- 17. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the mononitro aromatics each comprise one nitrocarbon moiety and wherein-said the dinitro aromatics each comprise two nitrocarbon moieties.
- 18. (Currently Amended) The <u>melt pourable melt-pourable</u> explosive composition of claim 15, wherein-said the one or more organic binders comprise at least one member selected from the group consisting of nitrotoluenes, dinitrotoluenes, and dinitronaphthalenes.



- 19. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more organic compounds comprise at least one member selected from the group consisting of nitrophenols, dinitrophenols, mononitroanilines, and dinitroanilines.
- 20. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more organic binders comprise at least one member selected from the group consisting of mononitro-substituted and dinitro-substituted phenyl alkyl ethers.
- 21. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more binders comprise at least one member selected from the group consisting of 2,4-dinitroanisole, 2,4-dinitrophenotoledinitrophenetole, and 4-methoxy-2-nitrophenol.
- 22. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more binders comprise 2,4-dinitroanisole.
- 23. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more organic binders comprise at least one heterocyclic compound.

- 24. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more binders comprise an N-alkyl-nitroaniline processing aid.
- 25. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more binders comprise N-methyl-nitroaniline as a processing aid.
- 26. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more binders comprise an N-aryl-nitroaniline processing aid.



- 28. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more inorganic oxidizers comprise at least one member selected from the group consisting of perchlorates and nitrates.
- 29. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more inorganic oxidizers comprise at least one perchlorate selected from the group consisting of ammonium perchlorate, sodium perchlorate, and potassium perchlorate.
- 30. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more inorganic oxidizers comprise at least one nitrate selected from the group consisting of ammonium nitrate, sodium nitrate, strontium nitrate, and potassium nitrate.



- 31. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more inorganic oxidizers have an average particle size of 3 microns to 60 microns.
- 32. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the one or more inorganic oxidizers have an average particle size of 5 microns to 20 microns.



33. (Previously Cancelled)

- 34. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein at least 99 weight percent of-said the melt-pourable explosive composition comprises a combination of said the one or more organic binders and said the one or more inorganic oxidizers.
- 35. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the melt-pourable explosive composition undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than-said the temperature at which said the melt-pourable explosive composition becomes pourable.
- 36. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the melt-pourable explosive composition exhibits a card gap value of less than 121.
- 37. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the melt-pourable explosive composition exhibits a card gap value of less than 101.

- 38. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the melt-pourable explosive composition exhibits a dent depth in a range of 0.754 cm to 0.922 cm.
- 39. (Currently Amended) The melt-pourable explosive composition of claim 15, wherein-said the melt-pourable explosive composition has a total energy of detonation of 7.1 kJ/cc to 8.7 kJ/cc.



- 40. (Currently Twice Amended) A melt-pourable explosive composition comprising: 30 weight percent to 70 weight percent of one or more organic binders selected from the group consisting of mononitro aromatics and dinitro aromatics, said the one or more organic binders collectively exhibiting a total energy detonation lower than trinitrotoluene and collectively having a total melting point in a range of 80°C to 115°C; and 30 weight percent to 70 weight percent of one or more inorganic oxidizers,
- wherein the melt-pourable explosive composition-becomes is melt-pourable and is remeltable to a pourable state at a temperature in a range of 80°C to 115°C, undergoes an onset of thermal decomposition at a temperature that is at least 55.5°C higher than-said the temperature at which-said the melt-pourable explosive composition becomes pourable and exhibits a card gap value of less than 121, a dent depth in a range of 0.754 cm to 0.922 cm, and a total energy of detonation of 7.1 kJ/cc to 8.7 kJ/cc, and
- wherein at least 95 weight percent of said the melt-pourable explosive composition comprises a combination of said the one or more organic binders and said the one or more inorganic oxidizers.
- 41. (Currently Amended) The melt-pourable explosive composition of claim 40, wherein the card gap <u>value</u> exhibited by the melt-pourable explosive composition is less than 101.



- 42. (Currently Amended) The melt-pourable explosive composition of claim 40, wherein the card gap <u>value</u> exhibited by the melt-pourable explosive composition is less than 81.
- 43. (Currently Amended) (Previously Added) The melt-pourable explosive composition of claim 1, wherein at least 99 weight percent of said the melt-pourable explosive composition comprises a combination of said the one or more organic binders and said the one or more inorganic oxidizers.
- 44. (Currently Amended) (Previously Added) The melt-pourable explosive composition of claim 41, wherein at least 99 weight percent of said the melt-pourable explosive composition comprises a combination of said the one or more organic binders and said the one or more inorganic oxidizers.